

**WHAT IS CLAIMED IS:**

1. An medical sensor comprising:  
a light emitting element configured to generate light of a selected wavelength, said light emitting element in communication with a first signal  
5 line;  
an information element, said information element in communication with said first signal line; and  
a detector responsive to light which originated from said light emitting element.
- 10 2. The medical sensor of Claim 1, wherein said light emitting element is activated by a signal on said first signal line.
3. The medical sensor of Claim 2, wherein said light emitting element is active with a signal on said first signal line at or above a first voltage level.
- 15 4. The medical sensor of Claim 3, wherein said information element is configured to provide information on said first signal line when a voltage level below said first voltage level is present on said first signal line.
5. The medical sensor of Claim 4, wherein said information element is coupled in parallel with said light emitting element.
- 20 6. The medical sensor of Claim 4, wherein said sensor comprises an oximeter sensor.
7. The medical sensor of Claim 1, wherein said information element is an impedance network.
8. The medical sensor of Claim 1, wherein said information element is a memory device.
- 25 9. The medical sensor of Claim 1, wherein said information element is a resistor.
10. The medical sensor of Claim 1, wherein said information indicates the selected wavelength value.
- 30 11. The medical sensor of Claim 1, wherein medical sensor is an oximeter sensor, said information element indicates that the medical sensor is of a predetermined type.

12. The oximeter sensor of Claim 11, wherein said information element is a security element which indicates that the medical sensor is an authorized sensor.

13. An oximeter sensor comprising:

a first signal line;

5 a light emitting element configured to generate light of a selected wavelength, said light emitting element in communication with said first signal line for receiving a drive current;

an information element having information about said oximeter sensor, said information element in communication with said first signal line, said  
10 information element adapted to provide said information on said first signal line; and

a detector responsive to light which originated from said light emitting element.

14. The oximeter sensor of Claim 13, wherein said light emitting element  
15 is activated by a signal on said first signal line.

15. The oximeter sensor of Claim 14, wherein said light emitting element is active with a signal on said first signal line at or above a first voltage level.

16. The oximeter sensor of Claim 15, wherein said information element is configured to provide information on said first signal line when a voltage level below  
20 said first voltage level is present on said first signal line.

17. The oximeter sensor of Claim 16, wherein said information element is coupled in parallel with said light emitting element.

18. The oximeter sensor of Claim 13, wherein said information element is an impedance network.

25 19. The oximeter sensor of Claim 13, wherein said information element is a memory device.

20. The oximeter sensor of Claim 13, wherein said information element is a resistor.

21. The oximeter sensor of Claim 13, wherein said information indicates the  
30 selected wavelength value.

22. The oximeter sensor of Claim 13, wherein said information element indicates that the medical sensor is of a predetermined type.

23. The oximeter sensor of Claim 22, wherein said information element is a security element which indicates that the medical sensor is an authorized sensor.

5 24. A medical monitor comprising:  
a sensor comprising:

a first signal line;

10 a light emitting element configured to generate light of a selected wavelength, said light emitting element associated with said first signal line for receiving a drive current; and

an information element having information about said oximeter sensor, said information element adapted to provide said information on said first signal line; and

15 a detector responsive to light which originated from said light emitting element; and

a processor in communication with said first signal line and in communication with said detector, said processor responsive to information on said first signal line from said information element and providing control for said light emitting element via said first signal line.

20 25. The medical monitor of Claim 24, wherein said processor comprises an oximeter processor.

26. The medical monitor of Claim 24, wherein said information is indicative of the selected wavelength of said light emitting element.

25 27. The medical monitor of Claim 24, wherein said information is indicative of the type of said sensor.

28. The medical monitor of Claim 25, wherein said information is indicative of the company that provides said sensor.

29. The medical monitor of Claim 25, wherein said light emitting element is active at or above a first voltage level and inactive below said first voltage level.

30. The medical monitor of Claim 29, wherein said information element is configured to provide said information on said first signal line when a voltage level below said first voltage level is present on said first signal line.

5 31. The medical monitor of Claim 24, wherein said information element is an impedance network.

32. The medical monitor of Claim 24, wherein said information element is a memory device.

33. The medical monitor of Claim 24, wherein said information element is a resistor.

10 34. An identification system for a medical sensor for use with a medical monitor, the medical monitor having a first signal line which provides control for said medical sensor and which receives information about said medical sensor, said medical sensor having a light emitting element configured to receive control signals on said first signal line, said identification system comprising:

15 an information element coupled to said first signal line, said information element configured to provide information to said medical monitor on said first signal line.

20 35. The identification system of Claim 35, and wherein said light emitting element is active at or above a first voltage and inactive below said first voltage, said information element responsive to a voltage below said first voltage to provide said information on said first signal line.

36. The identification system of Claim 36, wherein said light emitting element is responsive to a voltage at or above said first voltage on said first signal line to emit light of a selected wavelength.

25 37. The identification system of Claim 37, wherein said information is information about said selected wavelength.

38. The identification system of Claim 37, wherein said information is indicative of the type of the medical sensor.

30 39. The identification system of Claim 37, wherein said medical sensor is an oximeter sensor.

40. The identification system of Claim 40, wherein said information element is an impedance element.

41. The identification system of Claim 41, wherein said information element is a resistor.